**Homework 6- FORM A** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Absolute Value Equations** Period:\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| 1) a. Find the solution set of |2x – 3| = 15.  **\*HINT\* first set up 2 equations**  b. What is the distance between the two values for x?  **\*Remember\*distance is never negative\*** | 2) a. What are the values that satisfy |5 – 2k| = 9?  b. What is the sum of the two values for k? |
| 3) a. What is the solution set of 3|2w– 2| = 18  b. How far apart are the values for w? | 4) a. Find the solution set of 4|5x – 1| = 36  b. What is the sum of the two values of x? |
| 5) a. Find the solution set of 2|6m + 5| - 1 = 25  b. Find the distance between the two values for m. | 6) a. What are the values that satisfy 23 = |7a + 2|  b. How far apart are the values for a? |
| 7) Which of the following equations will have no solution?   1. |x + 5| = 6 2. |x – 3| = 0 3. |x + 8| = -2 4. All of these equations will have at least 1 solution | 8) What is the first step when solving an equation that has an absolute value term in it?   1. Write it as two equations: one positive and one negative 2. Solve for the absolute value term 3. C. Set the equation equal to 0 4. None of the above are the correct first step |
| 9) The equation 5|2x – 3| + 6 = 13 has two solutions. What is the sum of these two solutions?   1. 2.2 2. 3 3. 7 4. 9.5 | 10) Challenge – TRY! The equation  has two solutions. What is the sum of these two solutions? |

**Mixed Review:**

|  |  |  |
| --- | --- | --- |
| 11) The area of a trapezoid is represented by the formula: . Solve for *h*. | | 12) Find the slope and y-intercept of the following equation:  **\*Remember\* y= m(x) + b m=slope; b= y-intercept**    Slope: \_\_\_\_\_ y-intercept: \_\_\_\_\_ |
| 13) On a number line, point W is located at 3, X is located at –5, Y is located at –16, and Z is located at 11. What is the distance, in coordinate units, between points W and Z?  Y X W Z  -16 -5 3 11 | | 14) What is the solution set of ?  **\*HINT\***  1) create two cases that would make this statement true.  Case 1= write the problem out just as it is  Case 2= write it out with the *opposite sign*(+ or-) and the *opposite* ***inequality symbol* (<,>, ≤,≥, or =)** |
| 15) What is the solution set to the inequality below? | | 16) Which of the following inequalities, if any, have the same solution set? |
| 17) Determine whether the point  A(-4, 0) satisfies the equation below:  y = -2x + 8 | 18) Determine whether the following statements are true or false:  Description: http://image.tutorvista.com/Qimages/QD/39197.gif   1. Points R, C and T are coplanar. \_\_\_\_\_\_\_ 2. Line LS is the segment bisector of line ME. \_\_\_\_\_\_\_ 3. Points N and K are non-coplanar. \_\_\_\_\_\_\_ 4. There are 2 non-coplanar points M and E. \_\_\_\_\_\_\_ | |